

**National Mapping Program
Technical Instructions**

Technical Criteria for Digital Revision and Product Generation

**1:24,000-Scale Digital Line Graphs and
Quadrangle Maps**

Miscellaneous Instruction

Technical Criteria for Digital Revision and Product Generation
1:24,000-Scale Digital Line Graphs and Quadrangle Maps

PREFACE

This standard establishes the technical criteria for digital revision and product generation of digital line graphs (DLG) and derivative quadrangle maps. It is intended to supplement the Standards for 1:24,000-Scale Digital Line Graphs and Quadrangle Maps. Both documents apply to all primary series products at scales of 1:20,000 through 1:63,360.

→ There are two categories of digital revision: limited update and standard update. Limited update is the revision of an existing data set so that the revised set of DLG's maintains the positional accuracy of the existing data set or graphic map. Limited update feature content is restricted to feature types that are photoidentifiable on a monoscopic source supplemented with limited ancillary sources, and to feature types from existing DLG's that are not photoidentifiable but are not particularly prone to change. Standard update is the revision of an existing data set and map so that the revised set of DLG's and the map meet all current NMD standards for feature content and National Map Accuracy Standards (NMAS) for positional accuracy. Instructions for standard update and minor revision reprint will be issued later, as part of a revision and expansion of this instruction.

Data Production and Integration, in coordination with the mapping centers, determines which revision type to perform based on NMD programmatic commitments, user requirements, and available resources. Activities such as initial accuracy assessments, evaluations of existing DLG's and quadrangle materials, and deficiencies reported through graphic and digital product correction files support this determination. ←

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→ Part 2 of this standard contains guidance for generating quadrangle maps from DLG data. Currently, the map editing guidelines and feature-specific treatments, which apply to all revision types, are complete. Specific instructions for collar notes and other marginal data are included. Style sheets are issued as appendices to part 2. A section on preparing names and collar notes for survey areas in Ohio is issued as an appendix to part 2. ←

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SUMMARY OF CHANGES

Change Notice 11/96

Prior to 1995, the division had incorporated statements and instructions from the draft National Cartographic Standards for Spatial Accuracy (NCSSA) for addressing positional accuracy in digital revision. The intent for the NCSSA had been to update and replace the National Map Accuracy Standards (NMAS). As a result of a national review effort, the draft NCSSA was abandoned and replaced with a new draft spatial accuracy definition. This notice clarifies NMD's stance on positional accuracy by changing references and instructions back to NMAS. Additionally, with the completion of all parts of the Standards for 1:24,000-Scale Digital Line Graphs and Quadrangle Maps, Appendix 1-C is now obsolete and is to be removed.

Change Notice 8/96

Map collar content is updated to account for automated product generation processes, including rules-driven collar generation. Instructions for correct phrasing and standardized treatments for collar notes and other marginal data form a major addition to Part 2, Product Generation. Instructions for preparing interior names and collar notes for Ohio Surveys are added as Appendix 2-C.

Change Notice 11/94

The style sheet for USGS-USFS Single Edition Topographic Quadrangles is added as an appendix to the instructions.

Change Notice 10/94

A graphic simplification project determined that certain map symbols and collar information was costly to do (e.g. road destinations and fill ticks) or that the information could be derived from other symbology, resulting in changes to the style sheet (Appendix 2-A). Appendix 1-C, Limited Update Feature Content, is significantly shortened because of the issuance of Part 6, Built-up, in Standards for 1:24,000-Scale Digital Line Graphs and Quadrangle Maps, which contains instructions for limited update of Built-up features.

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SUMMARY OF CHANGES Continued

Change Notice 3/94

The Style Sheet for 1:24,000-scale topographic quadrangles is added as Appendix 2-A. The distance between the plant imprint note and the east neatline was corrected.

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LIST OF PAGES

A complete and current copy of the preliminary pages for Miscellaneous Instruction, Technical Criteria for Digital Revision and Product Generation, 1:24,000-Scale Digital Line Graphs and Quadrangle Maps, consists of the pages (and most recent creation or revision dates) listed below.

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